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# LID HAVING INTEGRAL ONE-PIECE EATING UTENSIL

## BACKGROUND OF THE INVENTION

The present invention relates to a lid for mounting on a food container, more particularly such a lid having a one-piece eating utensil integrally formed with, and easily removable from the lid.

5           The market for prepared, containerized food products has grown dramatically in recent years. The containerized, ready prepared foods have been found to provide great convenience for those with active lifestyles and enable such prepared foods to be readily marketed in a variety of container sizes to suit the needs of virtually all consumers. The consumption of such prepared food products, quite  
10           obviously, requires eating utensils, such as spoons, knives, and forks. A drawback of the known ready prepared food containers is a requirement of the user to provide such eating utensils, which oftentimes generates great inconvenience to the user.

          This problem has been recognized and many food containers incorporate covers or lids having an eating utensil contained in, or attached to the cover or lid.  
15           Such eating utensils have typically comprised multiple portions, such as separate utensils and handles, which must be removed from the cover or lid and which then must be subsequently assembled to enable the user to properly use the utensil. While such multi-piece utensils have been an improvement over the containers having no utensils, they have not proven to be entirely satisfactory. The  
20           multiple-piece eating utensils have increased the manufacturing costs and complexity of the container lids or covers and, generally, the mechanisms by which the multiple pieces are attached together have proven to be insufficiently strong to

enable the user to readily consume the food product, or have proven to be too complex for a user to readily comprehend.

Another known type of cover has a compartment in which a separate eating utensil is stored prior to use, or which is attached to the cover by a hinge which must be subsequently broken by the user prior to use. Again, these known types of covers have not proven to be entirely satisfactory, since the use of a separate storage compartment increases the size and bulk of the cover and, again, increases its manufacturing costs and complexity.

Thus, there is believed to be a need for a cover or lid having a one-piece eating utensil integrally formed with, and readily removable from the cover which does not require assembly after removal from the lid or cover, and which provides sufficient rigidity to enable the user to readily consume the food product. It is also believed that there is a need for such a lid or cover having a one-piece eating utensil which does not significantly increase the manufacturing or shipping costs of the lid or cover.

## SUMMARY OF THE INVENTION

A lid is disclosed that is configured to be mounted on a food container having a rim bounding an opening of the food container. The lid has a top cover wall with a through opening and an outer periphery, a one-piece eating utensil being located in the opening of the top cover wall and connected to the top cover wall by a plurality of discrete, spaced apart, frangible connecting elements. The one-piece utensil has a food engaging portion and an integral handle portion, the handle portion being configured to be gripped by a hand of a user. The length of the one-piece eating utensil, measured from an end of the food engaging portion to an end of the handle portion, is less than a distance between opposite sides of the periphery of the top

cover wall such that the one-piece eating utensil fits entirely within the periphery of the top cover wall. A side wall extends downwardly from the periphery of the top cover wall and is configured to engage the rim portion of the food container.

5 The present invention also encompasses such a lid having the side wall with a first wall portion extending from the periphery of the top cover wall, a second wall portion having a lateral dimension measured between opposite sides thereof greater than a corresponding dimension of the first wall portion, and a step portion connecting the first and second wall portions together. The second wall portion of one lid is configured to accept therein the first wall portion of another lid so as to permit a plurality of the lids to be stacked in nested fashion. This enables the lids to be stacked so as to minimize the volume occupied by a plurality of the containers, thereby minimizing costs of shipping the lids prior to the attachment to the food container.

15 The eating utensil integrally formed with the lid may comprise a spoon, a fork, or a knife. In each case, the handle portion may have reinforcing ribs to facilitate the gripping of the handle by the user, and to increase the rigidity of the handle portion to enable the user to consume the food product without encountering breakage or deformation of the eating utensil.

#### BRIEF DESCRIPTION OF THE DRAWINGS

20 Figure 1 is a perspective view of a lid according to the present invention.

Figure 2 is a cross-sectional view of the lid taken along lines II-II in Figure 1..

Figure 3 is a cross-sectional view taken along lines III-III in Figure 1.

Figure 4 is a cross-sectional view illustrating a plurality of lids stacked in nested fashion.

Figure 5 is a perspective view of the lid according to the present invention having a removable protective sheet.

Figure 6 is a perspective view of a lid according to the present invention without a protective sheet.

5           Figure 7 is a perspective view of a lid according to the present invention illustrating a fork as the eating utensil.

Figure 8 is a perspective view of a lid according to the present invention illustrating a knife as the eating utensil.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

10           The present invention relates to a lid having an integral, one-piece eating utensil that is easily removable from the lid and which possesses the requisite rigidity to enable the utensil to be used without deformation or breakage. Although the invention will be described with a spoon as the eating utensil, it is to be understood that eating utensils, such as, but not limited to, forks and knives, are also  
15           encompassed by this invention.

The lid 10, as illustrated in Figure 1, is configured to be mounted on a food container 12 having a rim (not shown) bounding an opening of the food container. The lid comprises a top cover wall 14 having an opening 16 therethrough and an outer periphery 14a.

20           A one-piece eating utensil 18 is integrally formed with the lid 10 and is located within the opening 16 through the top cover wall 14. As illustrated in Figures 1-6, the one-piece eating utensil 18 comprises a spoon having a concave food engaging portion 18a and an integral, handle portion 18b extending from one side of the food engaging portion 18a. Handle portion 18b is configured to facilitate the gripping

thereof by the user when the one-piece eating utensil 18 has been removed from the lid 10. A lower surface of the handle portion 18b may have one or more reinforcing ribs 18c extending therefrom so as to increase the rigidity of the handle portion 18b and to further facilitate gripping of the handle portion by the user.

5 As illustrated in Figure 1, the opening 16 through the top cover wall 14 is generally the same shape as the outline of the one-piece eating utensil 18. The one-piece eating utensil 18 is integrally formed with the lid 10, such as by injection molding, or other known forming processes. A plurality of discrete, spaced apart frangible connecting elements 20 are also integrally formed during the molding  
10 process and serve to releasably attach the one-piece eating utensil to the top cover wall 14. Since connecting elements 20 are frangible in nature, the one-piece eating utensil 18 may be readily removed from the lid 10 once the lid 10 has been removed from the container 12.

A distance  $d_1$  measured between opposite sides of the periphery 14a of the  
15 top cover wall 14 is illustrated in Figure 3. As can be seen in Figure 2, a length  $l$  of the one-piece eating utensil 18, measured between an end of the food engaging portion 18a and an end of the handle portion 18b, the total length of the one-piece eating utensil 18, is less than the distance  $d_1$  between opposite sides of the periphery of the top cover wall. Thus, the one-piece eating utensil fits entirely within  
20 the periphery 14a of top cover wall 14.

A side wall 22 extends downwardly from the periphery 14a of the top cover wall 14 and is configured to engage the rim portion of the food container 12. The side wall 22 comprises a first wall portion 22a extending from the periphery 14a of the top cover wall 14, a second wall portion 22b having a lateral dimension  $d_2$ ,  
25 measured between opposite sides thereof greater than a corresponding dimension of the first wall portion 22a, and a step portion 22c connecting the first and second

wall portions 22a, 22b, together. As can be seen in Figure 3, the lateral dimension measured between opposite sides of the first wall portion 22a corresponds to the distance  $d_1$ . Forming the side wall 22 such that  $d_1$  is less than  $d_2$ , enables a plurality of lids 10 to be stacked in nested fashion, as illustrated in Figure 4. Usually, within the industry, the lids and the containers are not made by the food suppliers, but are made by separate manufacturers specializing in those particular areas. The containers and lids are separately shipped to the food preparer, who then fills the container with the prepared food and applies the lids to the container. The stacking of the lids in nested fashion minimizes the volume occupied by a plurality of lids, thereby minimizing the shipping costs to transport the manufactured lids to the food processor. As illustrated in Figure 4, the concave food engaging portion 18a does not interfere with the nested stacking of the plurality of lids 10.

A protective sheet 24 may be attached to an upper surface of the top cover wall 14 such that the protective sheet covers at least an upper surface of the one-piece eating utensil 18. This prevents contamination of the one-piece eating utensil 18 during shipping, sale and handling of the food container 12. The protective sheet 24 may be permanently attached to the top cover wall 14, as illustrated in Figure 1. In this instance, once the lid 10 has been removed from the container 12, the eating utensil 18 may be removed from the underside of the lid 10. Protective sheet 24 may be attached to the top cover wall 14 by any known methods. The permanent attachment of the protective sheet 24 to the top cover wall 14 enables the food container 12 to be re-covered by the lid 10 if the contents of the container are not completely consumed.

Alternatively, the protective sheet 24 may be releasably attached to the top cover wall 14, as illustrated in Figure 5. Known types of releasable adhesives may be utilized to affix the protective sheet 24 to the top cover wall 14. A tab 24a may

also be added to the periphery of the protective sheet 24 to enable the user to readily remove the protective sheet from the lid 10. Quite obviously, the protective sheet 24 may be a transparent, translucent or opaque material and may have advertising indicia thereon.

5           The lid 10 may also be formed with no protective sheet, as illustrated in Figure 6. The construction of the lid 10 in the embodiments illustrated in Figures 5 and 6 is identical to the construction of the lid 10 previously described and illustrated in Figures 1-4.

10           The one-piece eating utensil may comprise a fork 26, illustrated in Figure 7, or a knife 28, illustrated in Figure 8. In each case, the top cover wall 14 has the through opening 16 and the one-piece utensil is integrally formed therewith and connected to the top wall 14 by a plurality of discrete, spaced apart frangible connecting elements 20. The fork 26 has food engaging portion 26a having a plurality of tines and an integral handle portion 26b. As in the previously described  
15           embodiment, the total length  $l$  of the eating utensil is less than the distance  $d_1$ . The handle portion 26b may also have the reinforcing ribs 26c to increase the rigidity of the handle portion 26b.

20           The one-piece knife 28 has blade portion 28a and an integral, handle portion 28b extending therefrom. Reinforcing ribs 28c may also be provided to increase the rigidity of the utensil. Blade portion 28a may also have a serrated edge 28d to increase the cutting efficiency of the knife 28. As in the previously described embodiment, the embodiments of Figures 7 and 8 may also be provided with a permanently attached protective sheet, a releasable protective sheet, or no protective sheet.



The foregoing description is provided for illustrative purposes only and should not be construed as in any way limiting this invention, the scope of which is defined solely by the appended claims.